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ABSTRACT

To investigate the impact of an inservice program on the concerns and needs of secondary teachers toward mainstreaming, questionnaires were administered to 127 experimental and 127 control teachers. Treatment consisted of an inservice program on mainstreaming conducted by an in-house consultant. The pre- and post-treatment questionnaires included information on demographics, mainstreaming needs, and teacher and administrator concerns toward innovation. Results revealed that the inservice program had little or no impact on the teachers' concerns or needs regarding mainstreaming. Findings supported previous research that has indicated teachers' negative attitudes toward mainstreaming and it was concluded that a more prolonged approach to familiarizing teachers with various disability groups may be needed. Implications touched upon the importance of considering the administrative, organizational, and individual needs of teachers and the advisability of returning funding and control of special education to the local schools. (CL)

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A Study on the Impact of an Inservice Program on the Concerns and Needs of Secondary Teachers Toward Mainstreaming

by

Irene Hendricks and Charles A. Sloan

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ABOUT THE AUTHORS

Charles A. Sloan is professor and chair, Faculty in Educational Administration and School Business Management, Northern Illinois University, DeKalb, IL.

Irene Hendricks holds a Doctorate in Educational Administration from Northern Illinois University, Master's degree in Special Education, Learning Disabilities, and Bachelor's degree in Special Education, EMH. She has ten years of teaching experience at the secondary level in Special Education.

ABSTRACT

The passage of Public Law 94-142, The Education of All Handicapped Children Act of 1975, has given school administrators the task of providing inservice training experiences for teachers responsible for mainstreamed handicapped students. The purpose of this study was to investigate the impact of an inservice program on the concerns and needs of secondary teachers toward mainstreaming.

The design of this study was quasi-experimental using a Pretest-Posttest Control Group Design without randomization of the population. A pretest was administered to both an experimental school and a control school located in a northwestern suburb of Cook County, Illinois. The treatment to the experimental school consisted of an inservice program extended over a school semester supported by a in-house consultant. Both experimental and control schools were posttested at the end of the semester with the same pretest instruments.

Two hypotheses were developed and analyzed by subdividing the hypotheses into 10 descriptive questions from a Demographic Survey. The primary independent variable was the Group (Experimental School, Control School). The dependent variables were the Stages of Concern Questionnaire and the Mainstreaming Needs Survey. Acceptance or rejection of the hypotheses was established at the .05 level of significance. The principal finding of the study was that the inservice program had little or no impact on the concerns and needs of secondary school teachers toward mainstreaming.

The passage of Public Law 94-142, The Education of All Handicapped Children Act of 1975, has given school administrators the task of providing inservice experiences for teachers responsible for mainstreamed handicapped students. Research studies by Kendall (1979), Kursberg (1978), Myers (1975), and Robinson (1977) have shown the importance of administrators' and teachers' attitudes in regard to mainstreaming handicapped students. In the above studies, administrators and teachers indicated a willingness to mainstream; however, the need for inservice training appeared a vital prerequisite. In their conclusions, Kendall, Kursberg, Meyers, and Robinson recommended the need for inservice programs for teachers to increase their knowledge of the handicapped, and to improve their attitudes towards the positive acceptance of handicapped students in regular programs.

Since the passage of Public Law 94-142, several research studies have investigated the effects of inservice education on teachers' attitudes toward mainstreaming at the elementary level (Becker, 1979; Fiorentino, 1978; Ingrom, 1976; Schorn, 1976; Singleton, 1977). Ingram's study (1976) indicated that a Mainstream Teacher Education Program did affect the attitude of its participants toward exceptional children. Similarly, Schorn's (1976) study supported the thesis that an individualized inservice practicum for regular classroom teachers can have a positive effect on changing their attitudes about mainstreaming children with special needs.

Singleton (1977) made several recommendations from her comparative study of two inservice methods used to create positive attitudes and expectancies of regular classroom teachers toward mainstreaming. Highlighting Singleton's recommendations were the following:

1. Educationally handicapped children who are primarily learning disabled should be the first to be mainstreamed.

2. Workshops alone are not recommended to prepare regular classroom teachers to accept in a positive manner educationally handicapped students into their classes.

3. Direct assistance programs in which teachers experience daily interaction with educationally handicapped students, utilizing the support and training provided by the resource specialists, should be the method of implementing the mainstreaming concept. (p. 186A)

In 1978, Fiorentino studied the effects of a short-term inservice education program on regular elementary teachers' attitudes and knowledge about mainstreaming. Using 46 elementary classroom teachers from one school system in Massachusetts, the inservice program consisted of four 2½ hour workshop sessions over a two-month period at the end of a regular school day. The results of the study indicated that the inservice program contributed to significant positive teacher attitude change towards mainstreaming on five dimensions of the Rucker-Gable Educational Programming Scale (mild, moderate, mental retardation, learning disabled, and total). The conclusion was the a short-term inservice education program can be effective in improving regular classroom teachers' attitudes toward mainstreaming.

A sourcebook for teacher trainers to use as a curriculum guide for training elementary teachers to maintain and integrate primary children with marginal or emerging learning and behavioral problems in the regular classroom was designed by Becker in 1979. The effectiveness of inservice training using simulation, videotape and participatory lecture was field tested over a five-week course. Qualitative questionnaire responses indicated that the experimental group was positively influenced by experiences designed to create understanding and acceptance of special children. Becker recommended that educational researchers develop increasingly accurate measures for evaluating teacher attitudes toward mainstreaming. Recommendations were made that inservice education extend over a school year supported by in-house

consultation for the teachers involved.

In a review of the research, however, there was a near void in the assessment of teacher concerns towards mainstreaming and the effectiveness of inservice programs at the secondary level. In 1979, Price investigated the competencies of regular secondary teachers for meeting the need of handicapped children in least restrictive environments. Findings of the study indicated the variables of age, highest degree held, sex, subjects taught in mainstreamed classes, and years of teaching experience do not affect the competencies of regular secondary teachers who are teaching the handicapped. However, Price's study did indicate that special education training did have an effect on the designated competencies of teaching the handicapped, but most regular secondary teachers of the handicapped do not take special education courses.

The Problem and Its Significance

The problem underlying this study was to determine the impact of an inservice program on the concerns and needs of secondary school teachers regarding mainstreaming. More specifically, there were two major research problems which consitutted this investigation: (1) to determine the differences in Stages of Concern scores between those persons who have experienced an inservice program and those who have not experienced an inservice program, and (2) to determine the differences in Mainstreaming Need scores between those persons who have experienced an inservice program and those who have not experienced an inservice program.

Since recent studies (Kendall, 1979; Kurzberg, 1978; Myers, 1975; Robinson, 1977) have indicated that the attitudes of teachers and administrators affect the learning process of students, the intent of this study was to

generate data and information that may provide direction to educators responsible for providing inservice programs.

The significance of this study developed from three conditions: (1) administrators have been given the responsibility of providing inservice programs on mainstreaming, (2) teachers need help in providing services for the handicapped child, and (3) appropriate inservice training cannot be planned and provided unless the specific training needs and concerns of teachers are identified.

With the advocacy of accountability in the schools, and a resistance to higher taxes, administrators charged with the responsibility of providing inservice programs for teachers must learn how to perform this function professionally, efficiently, and economically. Federal resources are now available to support inservice programs for handicapped children. Dr. Edwin W. Martin, former Deputy Commissioner of the Bureau of Education for the Handicapped (BEH) and presently Assistant Secretary for Special Education and Rehabilitation (SER) reported in the October, 1980, issue of the National Council of States on Inservice Education (NCSIE) that $55 million of the budget requested for 1980 went into personnel training (1980, p. 2).

Martin (1980) noted that "very, very few of the administrators of the school systems have had any specific training in dealing with handicapped children. They have had to learn by"hook and by crook" (p. 6). With 94 percent of the handicapped children in regular school buildings, administrators and teachers alike must become knowledgeable of the handicapped to provide a positive acceptance of them in a mainstreamed setting.

With various teacher groups exhibiting different needs regarding the handicapped child, educators charged with the responsibility of providing

inservice education must assess the needs of their faculty prior to conducting the inservice. Davis (1980) supported this belief in her article on training needs where she noted that while the ureau of Education for the Handicapped (BEH) was interested in finding ways of meeting training needs of educational personnel working with handicapped children, "appropriate inservice training cannot be planned and provided unless the specific training needs of these personnel are idnetified" (p. 7). Hopefully, better inservice programs will arise if needs and concerns are known and, with that in mind, this study was designed to generate data and information that will be useful to educators charged with the responsibility of providing inservice programs on mainstreaming for secondary school teachers.

Methodology

Essentially two questions were posed: (1) Did an inservice program for secondary school teachers have an impact on the Stages of Concern scores of teachers in regard to mainstreaming? and (2) Did an inservice program for secondary teachers have an impact on the Mainstreaming Needs scores of teachers in regard to mainstreaming?

The design of this study was quasi-experimental using a Pretest-Posttest Control Group Design without randomization of the population. A pretest was administered to both an experimental school (N=127) and a control school (N=127) located in a northwestern suburb of Cook County, Illinois, to establish baseline data and equivalency of the groups. The treatment to teachers in the experimental school consisted of an inservice program extended over a school semester supported by an in-house consultant. At the end of the semester, both experimental and control schools were posttested with the same pretest instruments.

Two hypotheses were developed and analyzed by subdividing the hypotheses according to 10 descriptive questions from a Demographic Survey. The primary independent variable was the Group (Experimental School, Control School). The experimental school consisted of those teachers who participated in an inservice program on mainstreaming and the control school consisted of those teachers who did not participate in the inservice program. The dependent variables were the Stages of Concern scores and the Mainstreaming Need scores.

Research Hypotheses 1 and 2 were formulated in the null form on the assumption that participation in an inservice program would not have an effect on the concerns and needs of secondary school teachers toward mainstreaming. Assuming that the instruments were valid for measuring such an effect and knowing that an invervice program requires time, planning, and money, such findings may, in fact, be critical in decisions concerning future delegation of time spent or funding of inservice training programs.

The data for this study were analyzed by subdividing Hypotheses 1 and 2 into the 10 descriptive questions from the demographic survey. The null hypotheses were tested utilizing a two-way ANOVA with the experimental and control groups being the primary independent variables. These analyses were utilized on both the concern scores and the need scores. Acceptance or rejection of the hypotheses was established at the .05 level of significance.

Three instruments were integrated into one self-administered questionnaire consisting of the following: (1) a 10-question Demographic Survey; (2) a 10-question Mainstreaming Needs Survey; and (3) a 35-question Stages of Concern Questionnaire. The following section explains each of the three instruments incorporated into the self-administered questionnaire utilized

in this study.

The Demographic Survey was developed by the investigator to collect selected demographic characteristics of teachers. This instrument consisted of 10 items with appropriate responses provided. The demographic questions were selected by the investigators following an examination of the literature (Fuller, Parson, & Watkins, 1974), and the manual for use of the Stages of Concern Questionnaire (Hall, George, & Rutherford, 1977).

The information was grouped under three general categories: (1) Personal Information, (2) Background Experience, and (3) Background in Mainstreaming. Specifically, these items included: (1) Personal Information which consisted of questions concerning position, sex, age, and education; (2) Background Experience in Education which consisted of years of experience in regular secondary education and years of experience as a special education teacher; and (3) Background Experience in Mainstreaming which consisted of formal training in mainstreaming, familiarity with Public Law 94-142, use of Individualized Educational Program (IEP), and time spent weekly working with mainstreamed children. These general categories and specific items for each major area are summarized in Table 1.

The Mainstreaming Needs Survey was based upon the results of a self-made needs assessment survey piloted by the inservice coordinator and the results of a Highland Park, Illinois, study (Chalfant, Van Husen-Psych, and Moultrie, 1979).

The Mainstreaming Needs Survey developed by the researchers used the same 0 to 7 Likert scale as the Stages of Concern Questionnaire to maintain consistency for the participants in the completion of the pretest/posttest instrument. The respondents were asked to rate the nine mainstreaming needs

Table 1

Selected Demographic Characteristics of Teachers

Category	Characteristic
Personal Information	A. Position
	B. Sex
	C. Age
	D. Education (highest degree earned)
Background Experience in Education	E. Years of experience in regular secondary education
	F. Years of experience as a special education teacher
Background Experience in Mainstreaming	G. Formal training in mainstreaming (workshops, courses)
	H. Familiarity with Public Law 94-142
	I. Use of Individualized Educational Program (IEP)
	J. Time spent weekly working with mainstreamed children

from 1 to 7 with 1 being not true of me, and 7 being very true of me now. For completely irrelevant items, a "0" was circled. Needs included in the survey were the following:

1. A need to improve communication between regular class teachers and special education teachers regarding specific special education students.
2. A need to learn how to discipline a special education student in a regular program without making them seem special or "apart" from other students.
3. A need to learn how to adapt materials for the special education student in a regular program.
4. A need to learn how to motivate a special education student.
5. A need to learn how to adjust evaluation or grading of a special education student in a regular program.
6. A need to become better informed as to what specific learning and/or behavior problems an individual student possesses who has been mainstreamed into a regular program.
7. A need to learn how to adjust lab situations and equipment for the special education student mainstreamed into a regular program.
8. A need to have a reduced number of regular students when special education students are mainstreamed into a regular program.
9. A need to learn how to teach regular and special education students on how to adjust to each others' needs in a regular program.

In addition, the Mainstreaming Needs Survey included a 10th statement to determine if respondents were in favor of mainstreaming special education (handicapped) students into regular programs.

The third component was the Stages of Concern Questionnaire (SoCQ), a standardized instrument that allows one to measure the concerns of teachers and administrators toward an innovation. The innovation used in this study was mainstreaming. The Stages of Concern Questionnaire was developed at the

Research and Development Center for Teacher Education, the University of Texas at Austin. According to Hall, George, and Rutherford, the Stages of Concern Questionnaire was a survey instrument that had proven to have high estimates of reliability, internal consistency and validity appropriate to accurately measure stages of concern.

At the control school, the pretest questionnaires were distributed at a required faculty meeting. A return of 59 percent of the questionnaires was received from the experimental school on the pretest, whereas a return of 85 percent was received from the control school on the pretest.

Due to the higher rate of return of the questionnaire at the control school, the posttests were distributed at the last required faculty meeting at both the experimental and control schools. The control school maintained a higher rate of return, with 87 percent, at the end of the year. The experimental school had a 64 percent return.

Findings

The two null hypotheses were tested utilizing a two-way factorail ANOVA with the Group (Experimental School, Control School) being the primary independent bariable and each of the demographic items serving as secondary independent variables. Analyses were done on both the Stages of Concern scores and the Mainstreaming Need scores. The null hypotheses were tested at the .05 level of significance.

For Hypothesis 1, it was concluded that there was no significant main effect difference by Group (Experimental, Control) and each of the 10 demographic variables. There was only one significant interaction between Group (Experimental, Control) and Experience in Regular Secondary Education.

Inspection of the mean table allowed one to observe that the control group scored higher, that is, were more at the Awareness level of the innovation, Mainstreaming, than the experimental group.

Therefore, the null hypothesis was accepted that there was no significant difference ($p < .05$) in concern scores between those who participated in an inservice program and those who did not when analyzed by: (A) Position, (B) Sex, (C) Age, (D) Education, (E) Experience in Regular Secondary Education, (F) Experience as a Special Education Teacher, (G) Formal Training in Mainstreaming, (H) Familiarity with Public Law 94-142, (I) IEP Use, and (J) Time Spent Weekly Working with Mainstreamed Students.

The data for Hypothesis 1 is summarized in Table 2. The data in the summary table indicated that there were no significant main effect differences between the experimental and control groups on any of the 10 demographic variables on the 7 Stages of Concern. However, there was one significant interaction between group and experience on Stage 0 (Awareness). This one difference was out of a possible 70 interactions tested and could be attributed to chance.

For Hypothesis 2, it was concluded that there was no significant main effect difference by Group (Experimental, Control) and 8 of the 10 demographical questions: (A) Position, (B) Sex, (C) Age, (D) Education, (E) Experience as a Special Education Teacher, (G) Formal Training in Mainstreaming, (H) Familiarity with Public Law 94-142, and (I) IEP Use.

There was a significant main effect difference by Group (Experimental, Control) and 2 of the 10 demographic questions: (E) Experience in Regular Secondary Education, and (J) Time Spent Weekly Working with Mainstreamed Students. Inspection of the mean tables allowed one to observe that the

Table 2

Summary of Significant Differences Between Stages of Concern Analyzed by Group and Secondary Demographic Variables

Stage	Source of Variance	1A Group X Position	1B Group X Sex	1C Group X Age	1D Group X Education	1E Group X Exper. in Reg. Sec. Ed.	1F Group X Exper. as Sp. Ed. Teacher	1G Group X Formal Training	1H Group X Familiarity with P.L. 94-142	1I Group X IEP Use	1J Group X Time Spent
0 Awareness	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	Sig.	Sig.	NS	NS	NS	Sig.	Sig.	Sig.	Sig.	NS
	Group X Variable	NS	NS	NS	NS	Sig.	NS	NS	NS	NS	NS
1 Informational	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	Sig.	Sig.	NS	NS	Sig.
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2 Personal	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	Sig.	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3 Management	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	Sig.	Sig.	NS	NS	NS	NS	NS	NS	NS	Sig.
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table 2 (continued)

Stage	Source of Variance	1A Group X Position	1B Group X Sex	1C Group X Age	1D Group X Education	1E Group X Exper. in Reg. Sec. ed.	1F Group X Exper. as Sp. Ed. Teacher	1G Group X Formal Training	1H Group X Familiarity with P.L. 94-142	1I Group X IEP Use	1J Group X Time Spent
4 Consequence	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	Sig.	NS	Sig.	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
5 Collaboration	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
6 Refocusing	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	Sig.	Sig.	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

control group scored higher, that is, desired more information on how to motivate special education students and were more in favor of mainstreaming, than the experimental group. There was no significant interactions between Group (Experimental, Control) and each of the 10 demographic variables.

Therefore, the null hypothesis was accepted that there was no significant difference ($p < .05$) in need scores between those who participated in an inservice program and those who did not when analyzed by: (A) Position, (B) Sex, (C) Age, (D) Education, (E) Experience in Regular Secondary Education, (F) Experience as a Special Education Teacher, (G) Formal Training in Mainstreaming, (H) Familiarity with Public Law 94-142, (I) IEP Use, and (J) Time Spent Weekly Working with Mainstreamed Students.

The data for Hypothesis 2 is summarized in Table 3. Observing the summary table, there were 2 significant main effect differences between the experimental and control groups on 2 of the 10 demographic variables on the 10 Mainstreaming Needs Survey questions. These were on Mainstreaming question 4, "the need to motivate a special education student" when analyzed by Experience in Regular Secondary Education, and on Mainstreaming question 10, "I am in favor of mainstreaming special education (handicapped) students into regular programs" when analyzed by Time Spent Weekly Working with Mainstreamed Students. Two out of a possible 100 main effect comparisons were significant; however, that number could be attributed to chance. Finally, there were no significant interactions between the experimental and control groups on any of the 10 Mainstreaming questions when analyzed by the 10 demographic variables.

Conclusions and Discussion

Hypothesis 1 was retained because there was no significant main effect

Table 3

Summary of Significant Differences Between Mainstreaming Needs Survey Analyzed by Group and Secondary Demographic Variables

Mainstreaming Need	Source of Variance	1A Group X Position	1B Group X Sex	1C Group X Age	1D Group X Education	1E Group X Exper. in Reg. Sec. Ed.	1F Group X Exper. as Sp. Ed. Teacher	1G Group X Formal Training	1H Group X Familiarity with P.L. 94-142	1I Group X IEP Use	1J Group X Time Spent
1 Improve Communication	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	Sig.	Sig.	Sig.
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2 Discipline Special Education Student	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
3 Adapt Materials	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
4 Motivate Special Education Student	Group	NS	NS	NS	NS	Sig.	NS	NS	NS	NS	NS
	Variable	Sig.	NS	NS	NS	NS	Sig.	NS	Sig.	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
5 Adjust Evaluation of Grading of Special Education Student	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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Table 3 (continued)

Mainstreaming Need	Source of Variance	1A Group X Position	1B Group X Sex	1C Group X Age	1D Group X Education	1E Group X Exper. in Reg. Sec. Ed.	1F Group X Exper. as Sp. Ed. Teacher	1G Group X Formal Training	1H Group X Familiarity with P.L. 94-142	1I Group X IEP Use	1J Group X Time Spent
6 More Informed of Behavioral and Learning Problems of Special Education Student	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
7 Adjust Lab and Equipment for Special Education Student	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	Sig.	Sig.	NS	NS	NS	Sig.	Sig.	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
8 Reduce Number of Regular Students when Special Education Students Are Mainstreamed	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
9 Teach Regular and Special Education Students to Adjust to Each Others' Needs	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10 I Am in Favor of Mainstreaming Special Education Students	Group	NS	NS	NS	NS	NS	NS	NS	NS	NS	Sig.
	Variable	Sig.	NS	NS	NS	NS	Sig.	Sig.	Sig.	Sig.	NS
	Group X Variable	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

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difference by Group (Experimental, Control) when analyzed by each of the 10 demographic variables. Only 1 out of a possible 70 interactions tested was significant; however, that finding itself could be attributed to chance. Therefore, the null hypothesis was accepted that there was no significant difference ($p < .05$) in concern scores between those who participated in an inservice program.

The finding that there was no significant relationship in concern scores between those who participated in an inservice program and those who did not would indicate that the inservice program conducted over a school semester with the support of an in-house consultant had little or no impact on the concerns of secondary school teachers toward mainstreaming. This conclusion is in contrast to the findings of Ingram (1976), Schorn (1976), Singleton (1977), Fiorentino (1978), and Becker (1979), who found inservice education to have a positive effect on teachers' attitudes toward mainstreaming.

On the other hand, the findings are in agreement with several research studies which indicated negative attitudes of teachers toward mainstreaming. Shotel, Iano, and McGettigan (1972) found that not only have teachers maintained attitudinal reservations about placing handicapped children in regular classrooms, but also, teachers' attitudes became significantly more negative as the regular classroom teacher gained experience with the retarded children. Gickling and Theobald (1975) confirmed the Shotel et al. findings and found that 85% of the regular teachers surveyed felt ill-equipped to provide appropriate instruction to handicapped children.

Harasymiew and Horne (1976) found that although inservice education may make teachers less anxious in working with handicapped children, basic attitudes toward disability groups were not changed. A more prolonged procedure of familiarization with various disability groups may be needed to

modify underlying social biases.

Mandell and Strain (1978) implied that perhaps not all teachers are well suited to working with handicapped students. The authors concluded that the identification of variables which correlated to positive teacher attitudes toward the handicapped could form a basis for selecting potential teachers in mainstreaming programs.

Results of previous research have also indicated that regular classroom teachers believed that they do not have the necessary time, support services, or training to effectively teach handicapped learners in their classrooms (Brant, 1979; Harasymiew and Horne, 1976; Hudson, Graham, and Warner, 1979; Hughes, 1978). In addition, Umansky and Cryan (1979) criticized that the practice of mainstreaming young children has preceded definitive evidence for the many persons caught up mainstreaming without adequate time to prepare for dealing with the problems to be resolved in the process.

As mainstreaming has become a reality for many, negative reactions have challenged the efficacy of the movement in meeting the needs of all students (Diamond, 1979; Frostig, 1979; Kunzweiler, 1979; Vandivier and Vandivier, 1979). Kunzweiler (1979) wrote that laws cannot mandate human transformation, human love, and acceptance and concluded that "mainstreaming will not work." Frostig (1979) argued that the habit of over-bureaucratizing and undertaking what Americans are not ready for works counter to good intentions. Diamond (1979) commented that while the concept of mainstreaming is highly commendable an an educational objective, mainstreaming promises more than our educational institutions can deliver at this time. Vandivier and Vandivier (1979) noted that special educators today are in a somewhat dubious position of selling the philosophy of mainstreaming rather than a particular methodology.

Finally, Linton and Juul (1980) suggested that mainstreaming needs to be viewed within the context of a comprehensive and coherent cascade of human services rather than strictly as a public school issue. Scandinavian countries were cited as having a complete lifetime planning model backed by stable long-range government funding.

For Hypothesis 2, it was concluded that there was no significant main effect difference by Group (Experimental, Control) and for 8 of the 10 demographic questions: (A) Position, (B) Sex, (C) Age, (D) Education, (F) Experience as a Special Education Teacher, (G) Formal Training in Mainstreaming, (H) Familiarity with Public Law 94-142, and (I) IEP Use.

There was a significant main effect difference by Group (Experimental, Control) and for 2 of the 10 demographic questions: (E) Experience in Regular Secondary Education, and (J) Time Spent Weekly Working with Mainstreamed Students. Inspection of the means tables allowed one to observe that the control group scored higher, that is, desired more information on how to motivate special education students and were more in favor of mainstreaming, than the experimental group. It is plausible that 2 out of a possible 100 main effect comparisons could be attributed to chance. There were no significant interactions between the experimental and control groups on any of the 10 Mainstreaming Need questions when analyzed by the 10 demographic variables.

The fact that there were only 2 significant differences in need scores out of a possible 100 between those who participated in an inservice program and those who did not would indicate that the inservice program conducted over a school semester with the support of an in-house consultant had little or no impact on the needs of secondary school teachers toward mainstreaming.

As noted by Davis' report (1980), appropriate inservice training programs

cannot be planned and provided unless specific training needs of teachers are identified. Once the needs are identified, those must be incorporated in a state's Annual Program Plan for a Comprehensive System of Personnel Development (CSPD) to qualify for Part B funds as indicated in Public Law 94-142.

Implementation of assessed needs as indicated in a CSPD requires both time and incentives to gain the support and cooperation of teachers. Although the needs of teachers were identified, both time and incentives were lacking to implement the assessed needs into an inservice program. Incentives, such as compensatory pay for time spent after school, release time from classroom teaching assignments, or graduate credit for time spent learning how to mainstream may have provided the time and support needed to make this inservice program effective in changing teachers' concerns and needs in regard to mainstreaming.

Observations

There were four observations made as to why the inservice program failed at the high school level in this study. They were:

1. The principal was bypassed in the planning process because the funding for this inservice program came through funds directed to a Coop rather than directly to the local school. Hence, there was a lack of ownership and strong commitment to the implementation of the innovation.

2. Neither the control school nor the experimental school were utilizing mainstreaming extensively as indicated on the SoC profiles (Figures 1 and 2). In graphing the Pretest SoCQ Profile and the Posttest SoCQ Profile (see Figures 1 and 2), the teachers in both the experimental school and the control school were primarily nonusers of the innovation, mainstreaming. The highest

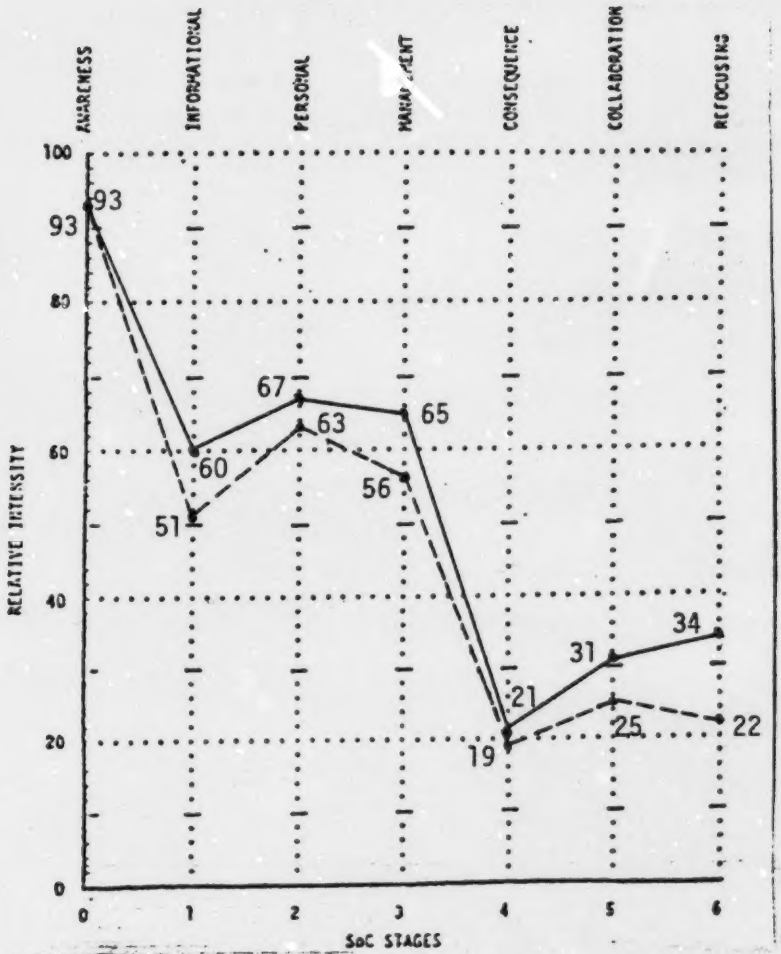

Figure 1

Experimental School--Pretest/Posttest SoCQ Profile

Key: -------- indicates the pretest of the Experimental School
——— indicates the posttest of the Experimental School

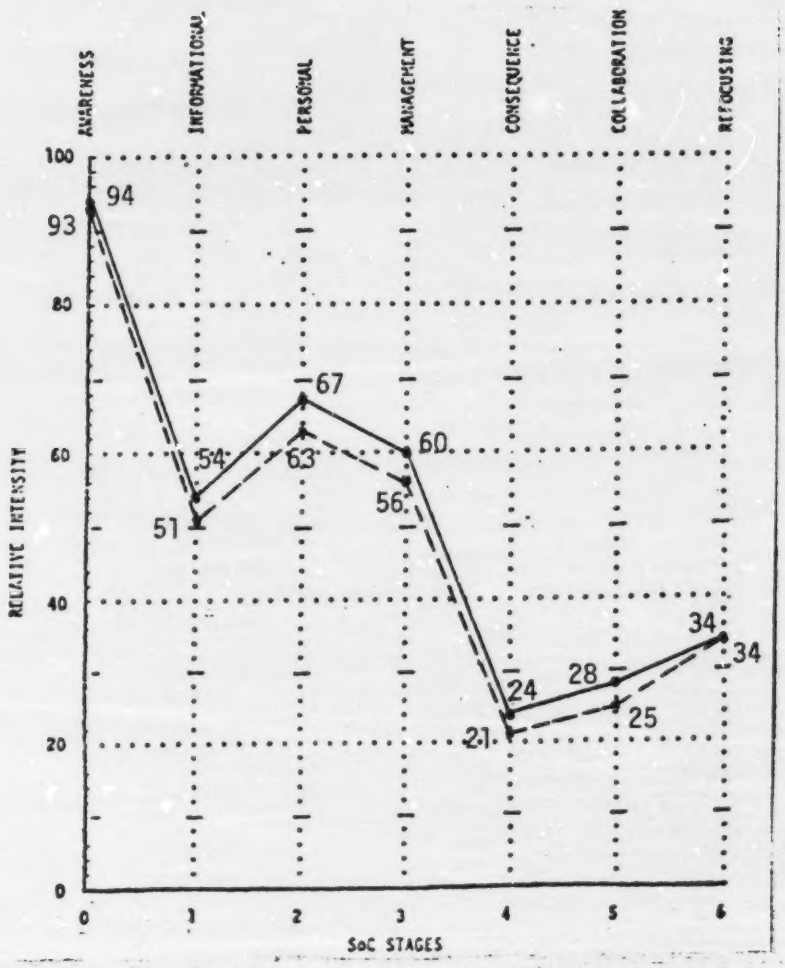

Figure 2

Control School--Pretest/Posttest SoCQ Profile

Key: -------- indicates the pretest of the Control School
———— indicates the posttest of the Control School

concerns of teachers were at Stages 0--Awareness, 2--Personal, and 1--Informational. This finding was evident in the literature by Hall, George, and Rutherford (1977) who hypothesized that individual concerns develop from being most intense at Stages 0, 1, and 2 (nonusers), to most intense at Stage 3, and, ultimately, to most intense at Stages 4, 5, and 6 (users) (p. 34). The profiles of both the experimental and control schools would be categorized as nonusers of the innovation, mainstreaming, according to Hall, George, and Rutherford (1977).

3. High schools generally operate on a tracking basis. Handicapped students are usually mainstreamed to remedial classes. Teachers in the academic subjects do not positively view mainstreamed students in average or accelerated classes as appropriate unless those students have the skills to function independently in those classes. Teachers of elective courses appear to be more receptive to mainstreamed students.

4. The change agent, an in-house consultant, lacked sufficient time and incentives to gain the support and cooperation of teachers.

Implications

Implications were drawn from the conclusion that an inservice program of the type used herein had little or no impact on the concerns and needs of teachers toward mainstreaming. Four implications from this study are described in the following paragraphs.

First, the administrative, organizational, and individual needs of teachers must be considered if schools are to provide a mainstreaming environment that maximizes the opportunities for student achievement.

Second, not all teachers may be suited for working with handicapped students. As Rosenthal's (1968) findings suggest, teacher attitudes and

expectations may have a significant impact on the academic performance of handicapped students. One cornerstone of successful mainstreaming is the positive interaction between the teacher and the handicapped student.

Third, the deregulation committee on Public Law 94-142 needs to reassess the value of placing funding and control of special education programs back in the hands of the local schools. Local control may facilitate successful mainstreaming by involving the leadership of the principal and the educational environment he or she is responsible for administering.

Fourth, teacher inservice and preservice training programs need the cooperation and support of both regular and special classroom teachers. As handicapped students are being reassigned to the mainstream, so should special education teachers be made available to the regular classroom teacher to provide assistance and expertise in working with handicapped students. The foundation for successful mainstreaming is the dynamic relationship between the requirements of the teachers and the specific needs of the students within that school.

Summary

In summary, the purpose of this study was to determine the impact of an inservice program on the concerns and needs of secondary teachers toward mainstreaming. The foregoing study has provided a review of the literature on mainstreaming, the change process, and teacher inservice programs. The major conclusion of this study was that the inservice program had little or no impact on the concerns and needs of secondary school teachers in regard to mainstreaming. Finally, the hope is that lawmakers, educators and researchers will be assisted by this study in providing an equal educational opportunity for all students and teachers in the mainstream.

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